

CLAIMS:

1. For use with a component defining a surface, the component including a printed circuit board supporting light-generating means, along with light-transporting means for
5 conducting light from the light-generating means to a light diffuser adjacent the surface, the improvement wherein the light-transporting means is in the form of two juxtaposed light pipe portions, and wherein an infrared transceiver module is coupled into both of the light pipe portions adjacent the light-generating means, each light pipe portion transporting visible light to the diffuser and a first one of said light pipe portions transporting invisible infrared light from
10 transceiver, a second one of said light pipe portions transporting invisible infrared light to said transceiver.

2. The improvement claimed in claim 1, in which an elongate, rectilinear slot separates the light pipe portions.

3. The improvement claimed in claim 2, in which the slot has spaced-apart bridges, and in which both light pipe portions are integrally molded together.

4. The improvement claimed in claim 1, in which the light diffuser is shaped to
20 define at least one lenticular protuberance, whereby light is distributed or collected over a wider cone angle than would occur if the diffuser were without such protuberance.

5. The improvement claimed in claim 3, in which the light diffuser is shaped to
25 define at least one lenticular protuberance, whereby light is distributed or collected over a wider cone angle that would occur if the diffuser were without such protuberance.

6. The improvement claimed in claim 3, in which alignment pins are molded into the light pipe portions, the pins being adapted to fit into holes provided in the printed circuit board, thus allowing accurate positioning of the light pipe portions with respect to the said light-
30 generating means.

7. The improvement claimed in claim 5, in which alignment pins are molded into the light pipe portions, the pins being adapted to fit into holes provided in the printed circuit board, thus allowing accurate positioning of the light pipe portions with respect to the said light-generating means.

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8. In a component defining a surface and including a printed circuit board supporting light-generating means, and further including light-transporting means for conducting light from the light-generating means to a light diffuser adjacent the surface, an improved method of operation wherein an infrared transceiver module is coupled into both of the light pipe portions adjacent the light-generating means, each light pipe portion transporting visible light to the diffuser and a first one of said light pipe portions transporting visible light to the diffuser and a first one of said light pipe portions transporting invisible infrared light from said transceiver while a second one of said light pipe portions transports invisible infrared light to said transceiver.

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9. The method claimed in claim 8, in which an elongate, rectilinear slot separates the light pipe portions.

10. The method claimed in claim 9, in which the slot has spaced-apart bridges, and in which both light pipe portions are integrally molded together.

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11. The method claimed in claim 8, in which the light diffuser is shaped to define at least one lenticular protuberance, whereby light is distributed or collected over a wider cone angle than would occur if the diffuser were without such protuberance.

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12. The method claimed in claim 10, in which the light diffuser is shaped to define at least one lenticular protuberance, whereby light is distributed or collected over a wider cone angle than would occur if the diffuser were without such protuberance.

13. The method claimed in claim 10, in which alignment pins are molded into the light pipe portions, the pins fitting into holes provided in the printed circuit board, thus accurately positioning the light pipe portions with respect to the said light-generating means.

5 14. The method claimed in claim 12, in which alignment pins are molded into the light pipe portions, the pins fitting into holes provided in the printed circuit board, thus accurately positioning the light pipe portions with respect to the said light-generating means.